

## Recognizing Verbal Irony in Spontaneous Speech

Gregory A. Bryant and Jean E. Fox Tree

*Department of Psychology  
University of California, Santa Cruz*

We explored the differential impact of auditory information and written contextual information on the recognition of verbal irony in spontaneous speech. Based on relevance theory, we predicted that speakers would provide acoustic disambiguation cues when speaking in situations that lack other sources of information, such as a visual channel. We further predicted that listeners would use this information, in addition to context, when interpreting the utterances. People were presented with spontaneously produced ironic and nonironic utterances from radio talk shows in written or auditory form, with or without written contextual information. When the utterances were read without written contextual information, all utterances were rated as equally ironic. But when they were heard as opposed to read, or when they were presented in irony-biasing contexts, originally ironic utterances were rated as more sarcastic than originally nonironic utterances. This evidence suggests both acoustic and contextual information are used when inferring ironic intent in spontaneous speech, and validates previous manipulations of intonation in studies of irony understanding.

“That’s certainly a good idea!” could be taken as a compliment or an insult. Does the interpretation depend on how it is said, or what preceded it? According to the principle of relevance, listeners attempt to extract the most relevant meaning of an utterance with the least processing effort, and speakers’ efforts should accommodate this (Sperber & Wilson, 1986). If conversationalists attempt to communicate as efficiently as possible given the communicative context, speech should contain semantic disambiguation cues as a function of the richness of contextual information. In two experiments using spontaneous speech taken from talk radio programs, we demonstrate that speakers provide prosodic disambiguation cues when

using verbal irony. We also show that listeners use this information, in addition to written contextual information, when making judgments of ironic intent.

Verbal irony is classically defined as the use of words to convey a meaning that is something other than, and especially the opposite of, the literal meaning of the words. This definition, however, does not appropriately characterize the phenomenon and certainly does not explain it. Wilson and Sperber (1992) pointed out many examples of ironical utterances that do not concur with this description. Not only are there examples of ironic speech that do not rely on saying the opposite of what one means, but there are cases where all the traditional criteria of irony exist and the utterance is not ironic. Wilson and Sperber argued that verbal irony is a form of echoic interpretation; that is, speakers communicate an attitude toward some attributed proposition by echoing that proposition explicitly or implicitly, and simultaneously commenting on it. In our example, "that's certainly a good idea!" the speaker echoed the proposition that some idea was good, but at the same time disassociated himself from the proposition and communicated his negative attitude toward it, thereby expressing disapproval of the idea itself. In this case he said roughly the opposite of what he meant, but he could have used understatement and uttered, "that idea could use some improvement." Thus, he would have avoided saying the opposite of what he meant and retained his ironic intention. To allow listeners to understand such complex speech acts, speakers often must provide additional information to make utterances clear.

The production and processing of disambiguation cues involves certain costs, but without the cues, interlocutors risk misunderstanding. To minimize the potential costs and maximize relevance, verbal irony should contain features that assist listeners in reaching correct interpretations, particularly in contexts with reduced available information. We predicted that spontaneously produced verbal irony occurring in a radio talk show context (i.e., when conversationalists are often strangers and not in one another's immediate presence) would contain prosodic disambiguation cues, and that listeners would be able to distinguish between ironic and nonironic target utterances using both contextual and prosodic information. This was expected for two reasons. First, a lack of familiarity between conversationalists should encourage speakers to go to extra effort to avoid being misunderstood, and second, the lack of a visual channel limits the range of options for non-verbal communication, so prosodic features should be relied on more heavily.

There is evidence that speakers do rely more on prosody in situations where listeners have processing limitations (e.g., Capelli, Nakagawa, & Madden, 1990; Fernald, 1992). For example, parents speaking to infants will use exaggerated pitch contours, increased amplitude, and more pronounced articulation. This way of speaking is well suited to rapidly affect the behavior of children with immature perceptual systems and little or no linguistic ability. Fernald characterized this behavior as an adaptation functionally designed to serve this purpose. Prosodic features have also been shown to help older children understand verbal irony. Capelli

et al. found that without an associated sarcastic intonation, children up to 12 years old were unable to infer ironic meanings from contextual cues alone. The way adults modify their speech to infants and young children shows that particular disambiguation strategies emerge when they are needed. These parental vocalizations are relevant to children and convey important information efficiently. The benefits of effective communication in these situations are worth the costs of extra speech production efforts.

We test the role of written context and prosody in adult overhearers' recognition of verbal irony. Although context has been known to shift judgments of irony (Gibbs, 1994), little is known about the role of tone of voice in spontaneously produced materials. The spontaneous production is important because materials created by actors can sometimes yield outcomes at odds with those produced by naive speakers (Allbritton, McKoon, & Ratcliff, 1996; Fox Tree & Meijer, 2000).

Several authors have speculated about the use of special vocal cues in ironic speech (e.g., Cutler, 1974; Haiman, 1998). Sarcastic intonation or "ironic tone of voice" is thought to be recognized through nasalization, slowed speech rate, prolonged syllables, and other particular prosodic features. Haiman discussed the notion of "intonational misfits" at odds with the words being spoken such as exaggeration, flattening (used with excited words), singsong melody, falsetto, and separation by pauses (p. 32). The idea is that an incongruity between the prosodic features and the specific words being used helps convey a metamessage that contains the speaker's intention and attitude, although this was not demonstrated empirically.

Some research has specifically examined how sarcasm produced by actors results in acoustically distinct utterances (Anolli, Ciceri, & Infantino, 2000; Milosky & Ford, 1997). Anolli et al. made a distinction between sarcastic irony (blame by praise) and kind irony (praise by blame). Written scripts were created containing target utterances of sarcastic irony, kind irony, and their literal counterparts (4 total) and students were recorded reading the narratives. The target utterances were analyzed for fundamental frequency (F0) information, amplitude, and various duration properties. Sarcastic irony was found to elicit significantly higher F0 values than kind irony, and kind irony elicited higher values than normal speech. Additionally, ironic speech (sarcastic and kind) contained greater vocal intensity and several duration differences from normal speech. Anolli et al. showed there are links between vocal cues and verbal irony, but they did not address the issue of whether listeners used this information.

Other researchers have shown that listeners' judgments are affected by prosodic cues produced by actors. In one study by Milosky and Ford (1997), actors read stories and then read aloud the target utterances that were either said in a complimentary, sarcastic, or ambiguous way. Textual disambiguation cues were not controlled. Utterances judged most likely to be sarcastic were longer in duration and had greater F0 variability (as indicated by a greater F0 *SD*). Rockwell (2000) found

that readers instructed to act sarcastically (posed sarcasm) produced target utterances that were acoustically and perceptually distinct from nonsarcastic versions of the same sentences. But when the readers were not instructed to produce the targets sarcastically, and instead were told to produce the utterances appropriately given the preceding contexts (labeled *spontaneous*), the sarcastic target utterances were no longer distinct. No formal acoustic analyses were performed, but perceptual coders found posed sarcasm to be slower in tempo, louder, and lower in pitch relative to nonsarcasm (Rockwell, 2000).

Some have suggested that vocal cues and lexical features are closely linked. Kreuz and Roberts (1995) examined the effect of veridicality and hyperbole on interpretations of verbal irony. Main effects were found for both, and these factors were additive. Hyperbolic utterances were rated as more likely to be ironic even when they were veridical. Kreuz and Roberts concluded that hyperbole functions as a reliable cue for recognizing ironic intent. They further suggested that the ironic tone of voice might be just the use of hyperbole, although they recommended future research manipulating intonation. It is difficult to shed light on people's uses of vocal cues in experiments with written materials.

In our work, we tapped into people's intuitive understanding of verbal irony by asking them to identify utterances' true contexts from a selection of two contexts, without any reference to irony (Experiment 1), and by asking them to rate how sarcastic utterances were (Experiment 2). We selected materials from talk radio programs that were textually ambiguous, but prosodically unambiguous, as confirmed by a group of listeners from the same pool as the experimental participants (Norming Procedures 1 and 2). By textual ambiguity, we mean that the written version of the utterance could be easily interpreted either literally or ironically. That is, they contained no conventionalized ironic words such as *boy* in initial position ("boy, that's a good idea") or positive affirmations of government (in pilot studies, positive mention of government was judged as ironic, even if it wasn't), and they contained no hyperbole (Kreuz & Roberts, 1995). Because the items would later be couched in both ironic and nonironic contexts, the target utterances needed to make sense both ways.

We then wrote contexts biasing toward an alternative interpretation, as in the following:

Sarcastic bias: So they uh, want to give kids a pass to the next grade despite failure, what do they call it ... a social promotion? *That's certainly a good idea.*

Nonsarcastic bias: Instead of uh, letting these children go on despite failure, they are proposing intensive tutoring. ... what do they call it ... specialized schooling? *That's certainly a good idea.*

We checked that the contexts were equally believable (Norming Procedure 3) and differentially interpreted as either ironic or not (Norming Procedure 4). The believability was important because we did not want the sentence we wrote to be immediately identified as fantastic, possibly resulting in artifactually high participant accuracy in determining original contexts, due to immediate discounting of our invented contexts. In our main experiments, we tested people's abilities to select appropriate contexts when presented prosodically unambiguous utterances (Experiment 1), and we measured people's ratings of the sarcasm of the test utterances depending on the two factors, context and prosody (Experiment 2).

### NORMING PROCEDURE 1

To control for possible disambiguation cues present in the words of the target utterances (such as *boy* or *groovy*), it was necessary to choose sentences that were not identifiable as differentially ironic or nonironic when contextually isolated.

#### Method

*Participants.* In this and all the following studies, participants were native English speaking University of California, Santa Cruz students who participated for course credit. In Norming Procedure 1, 23 students participated.

*Materials.* We selected 24 utterances from spontaneous speech recorded from talk radio shows. We identified utterances that were textually ambiguous and that contained no overlapping speech. Utterances were digitized with no alterations. Although we made the initial determination of ironic content, these judgments were confirmed in Norming Procedure 4. In Norming Procedure 1, participants read a transcript of each stimulus with ironic and nonironic items interspersed with one another.

*Procedure.* Participants read the target utterances and rated the degree of sarcasm expressed on a seven-point scale between 1 (*not sarcastic*) and 7 (*very sarcastic*). Neither context nor prosody was available for this judgment. After rating all the utterances, participants indicated which they would prefer in making this judgment, context or voice. They then did their best to define *sarcasm*. In pilot work, students defined *verbal irony*. Participants also provided definitions of sarcasm in Norming Procedure 2. We defer discussion of the definitions to the discussion of Norming Procedure 2.

## Results and Discussion

When written out, readers rated both ironic ( $M = 4.1$ ,  $SD = .82$ ) and nonironic ( $M = 3.9$ ,  $SD = .73$ ) utterances as equally sarcastic ( $t1(22) = 1.79$ ,  $p = ns$ ;  $t2(23) = .62$ ,  $p = ns$ ). All participants reported that they would prefer to have the voice over the context in making this judgment.

## NORMING PROCEDURE 2

It was necessary to ensure the clarity of the isolated auditory targets by presenting them to participants and having them write down verbatim what they heard. We also tested whether participants could identify the ironic utterances through auditory presentation alone without written contextual information.

### Method

*Participants.* Twenty-six students participated.

*Materials.* The auditory versions of the 24 stimuli from Norming Procedure 1 were recorded onto a tape cassette with ironic and nonironic items interspersed with one another.

*Procedure.* Each trial went as follows: (a) Participants heard a target utterance, (b) stopped the tape, (c) wrote down the utterance verbatim, (d) wrote down what they thought the speaker meant by the utterance, and (e) rated the sarcasm expressed by the speaker as in Norming Procedure 1. In interpreting speaker meaning, participants were provided with suggestions such as paraphrasing the meaning, describing speaker intention, or describing the possible context for the utterance. Participants were then asked to define sarcasm.

## Results and Discussion

All items were intelligible. Of the 624 responses, only 18 were mistranscribed, not counting one-word errors that did not affect comprehension (56 occurrences). Ten of the mistranscription errors involved either one or two words that significantly affected comprehension. For example, a participant reported hearing “you’ve lost the *right* to live”, instead of “you’ve lost the *will* to live.”

Listeners rated originally ironic utterances ( $M = 3.69$ ,  $SD = 1.15$ ) as more ironic than originally nonironic utterances ( $M = 2.45$ ,  $SD = .73$ ;  $t1(25) = 10.85$ ,  $p < .001$ ;  $t2(23) = 2.46$ ,  $p < .05$ ). When asked how they decided what speakers meant in their utterances, 19 out of 26 participants claimed to use tone of voice, but many also

claimed to rely on the way words were used. This is illustrated by the following interpretation of a sarcastic item: In the utterance “*they don’t have fun, oh no, they don’t have fun,*” a speaker “says they don’t have fun when they really do.”

Most participants in Norming Procedures 1 and 2 ( $N = 49$ ) could not provide adequate definitions of sarcasm. Some typical responses were (a) “Telling a person something that you don’t believe, or that is not true. Making fun of something by lying about it”; (b) “Saying the opposite of what you mean in a way that emphasizes you don’t mean it”; (c) “Saying something you don’t really mean in a joking way.” Twenty-one participants clearly got it right, but none of them defined it sufficiently by professional standards. Many researchers have noted the confusion between these two words (e.g., Creusere, 1999; Gibbs, 1986; Milosky & Ford, 1997). Sarcasm is traditionally defined as ironic language directed at an individual or group of people for derogatory purposes (Fowler, 1965). This definition is debatable but there is empirical evidence that ridicule plays a special role in sarcasm (Lee & Katz, 1998). Although 27 participants identified some correct features of sarcastic utterances, such as that something is being ridiculed, or that it is ironic (usually explained as “saying the opposite of what you mean”), 24 participants listed features that are not necessary characteristics of sarcasm, such as “the tone of your voice hints that you don’t really mean what you’re saying,” or “they are saying something they don’t mean, but they are funny because you know they don’t mean it.”

Definitions of verbal irony from the pilot studies ( $N = 25$ ) were too vague to determine whether the students really knew what it was. Eight participants clearly got it right, but most students were unable to provide a reasonable definition. Typical responses were (a) “No clue,” (b) “Making something sound familiar in contrast to something else,” (c) “There’s a hidden meaning in their words that conveys some sort of weirdness or coincidence.” Because participants understood the term *sarcastic* much better than *verbal irony*, we used *sarcastic* in the rating scales. In addition, previous research has found that people often find most instances of irony to be *sarcastic* (Gibbs, 1986).

### NORMING PROCEDURE 3

To determine the effect of written context on the interpretation of textually ambiguous target utterances, contexts were needed that unambiguously conveyed irony or not; however, because the utterances actually occurred in either an ironic or nonironic context, each one needed an alternative context that was equally plausible and natural. Norming Procedure 3 tested whether the actual and fictional contexts were equally believable given the target, and Norming Procedure 4 verified that the contexts were differentially interpreted as ironic or nonironic.

## Method

*Participants.* Nineteen students participated.

*Materials.* Two contexts were developed for each of the 24 stimuli (see Appendix). One context recreated the original context as closely as possible, and the other depicted a fictitious scenario biasing toward an alternative interpretation of the target. The contexts were all presented in the form of a supposed dialogue that led to the target utterances. No explanatory descriptions were provided.

Equalizing believability was challenging. For example, not only did the invented ironic context need to be rich enough to allow for third parties to detect verbal irony, but also they needed to be comparable to the nonironic contexts in their realism. Surprisingly, the most common problem was getting the participants to believe utterances occurred in their actual contexts rather than the ones we invented, particularly if the contexts were originally ironic.

*Procedure.* People saw each context with the target utterance embedded within it. They were told that the target utterance was an actual statement taken from spontaneous speech. They circled what they believed to be the utterance's true context. The procedure had three rounds with approximately 20 participants in each. The first two rounds revealed problematic contexts that were altered for the final round presented here.

## Results and Discussion

When reading all materials, participants performed no better than chance at selecting original contexts, 53% correct;  $t1(18) = 1.19, p = ns$ ;  $t2(23) = .55, p = ns$ .

There was a bias toward choosing nonsarcastic contexts. Participants chose the nonsarcastic context 301 times out of 456 total trials (66%). This bias was significant,  $\chi^2(1, N = 456) = 46.75, p < .001$ , confirming our selection of textually ambiguous stimuli. Because ironic statements are far less common in talk than nonironic ones (about 8% in two different studies, Gibbs, 2000; Tannen, 1984), when they need to guess, people should opt for the base rate likelihood and select the nonironic contexts.

## NORMING PROCEDURE 4

### Method

*Participants.* Twenty-four students participated.

**Materials.** The 24 stimuli were divided into two counterbalanced lists. Each list contained all 24 utterances, but only one of the two associated contexts. Twelve participants read each list.

**Procedure.** Participants read each stimulus embedded in one of the two contexts and rated the sarcasm expressed by the speaker as in Norming Procedure 1.

**Results and Discussion**

People rated targets in ironic contexts ( $M = 5.49, SD = 1.43$ ) as being more sarcastic than in nonironic contexts,  $M = 2.86, SD = 1.56; F1(1, 23) = 183.16, p < .001; F2(1, 22) = 69.23, p < .001$ . But they did not rate *originally* ironic targets ( $M = 4.07, SD = 1.54$ ) as more sarcastic than originally nonironic targets,  $M = 4.26, SD = 1.54; F1(1, 23) = .57, p = ns; F2(1, 22) = .26, p = ns$ . However, there was a trend toward an interaction between utterance type and context type,  $F1(1, 23) = 36.09, p < .001; F2(1, 22) = 4.02, p < .06$ , such that in an ironic context, nonironic targets were rated slightly more sarcastic than ironic targets, and the ironic targets were considered slightly more sarcastic in nonironic contexts than nonironic targets (see Figure 1). We believe this is due to the difficulty in equalizing the believability of the fictitious contexts. Equally believable nonironic biasing contexts for sarcastic targets were somewhat unusual, which may have caused ambivalent interpretations. The more common nonironic targets and associated contexts were easier to

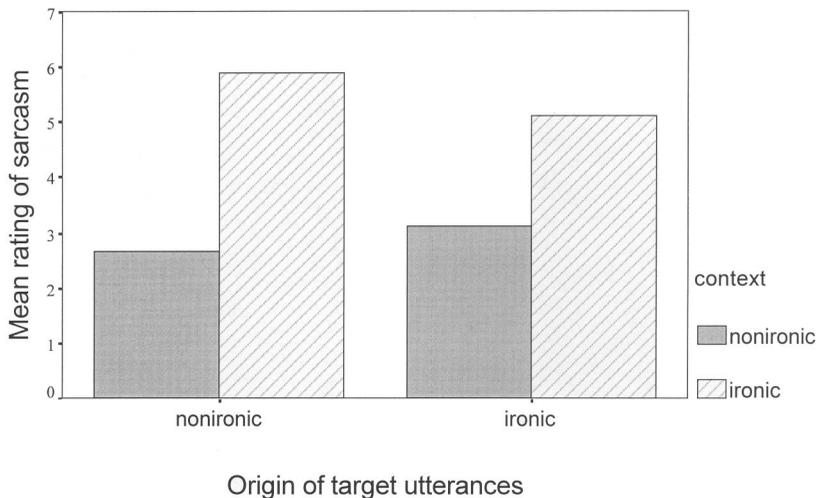


FIGURE 1 Norming Procedure 4: Mean responses to targets read in different contexts.

match for believability. When plausibility is increased, disambiguating speaker intentions is easier.

## SUMMARY OF NORMING PROCEDURES

The target utterances were textually ambiguous (Norming Procedure 1) and prosodically unambiguous (Norming Procedure 2). The actual and fictitious contexts were differentiated properly with regard to the ironic content (Norming Procedure 4), and they were perceived to be equally plausible albeit with a bias toward finding the nonironic contexts to be more likely (Norming Procedure 3).

In Experiments 1 and 2, we measured the contribution of context and prosody to people's sorting of target utterances and their ratings of sarcasm of target utterances. Experiments 1 and 2 were identical to Norming Procedures 3 and 4, respectively, except that participants were able to hear the target utterances.

## EXPERIMENT 1

### Method

*Participants.* Forty-two students participated.

*Materials.* The auditory versions of the 24 utterances and the two written contexts associated with each were used.

*Procedure.* Each trial went as follows: (a) Participants read the target and the two possible contexts, (b) they played the target on a cassette tape, (c) they stopped the tape, and (d) they chose which context they thought the target originated from.

### Results and Discussion

Without being asked about prosody or irony at all, people performed better than chance at identifying the contexts in which utterances originated, 67% correct;  $t1(29) = 9.39, p < .001$ ;  $t2(23) = 3.34, p < .01$ . As in Norming Procedure 3, there was a significant bias toward choosing nonsarcastic contexts. Participants chose the nonsarcastic context 633 times out of 1007 trials (63%). This bias was significant,  $\chi^2(1, N = 1007) = 79.53, p < .001$ .

EXPERIMENT 2

Method

*Participants.* Thirty-four students participated.

*Materials.* The auditory versions of the 24 utterances and the two contexts associated with each were used, in two counterbalanced lists (see Norming Procedure 4).

*Procedure.* Each trial went as follows: (a) Participants read the target embedded in one context, (b) they played the target on a cassette tape, (c) they stopped the tape, and (d) they rated the sarcasm expressed by the speaker as in Norming Procedure 1. After all the utterances were heard and rated, they wrote out how they determined the level of sarcasm.

Results and Discussion

People rated targets *originally* produced in an ironic context ( $M = 4.43, SD = 1.63$ ) as more sarcastic than those produced in a nonironic context,  $M = 3.08, SD = 1.57$ ;  $F1(1, 33) = 23.25, p < .001$ ;  $F2(1, 22) = 14.22, p < .01$ . They also rated utterances presented in irony-biasing contexts ( $M = 4.29, SD = 1.55$ ) as more sarcastic than utterances presented in nonironic contexts,  $M = 3.22, SD = 1.76$ ;  $F1(1, 33) = 18.71, p < .001$ ;  $F2(1, 22) = 29.77, p < .001$ . There was no interaction between these factors,  $F1(1, 33) = 1.84, p = ns$ ;  $F2(1, 22) = .80, p = ns$ ; see Figure 2.

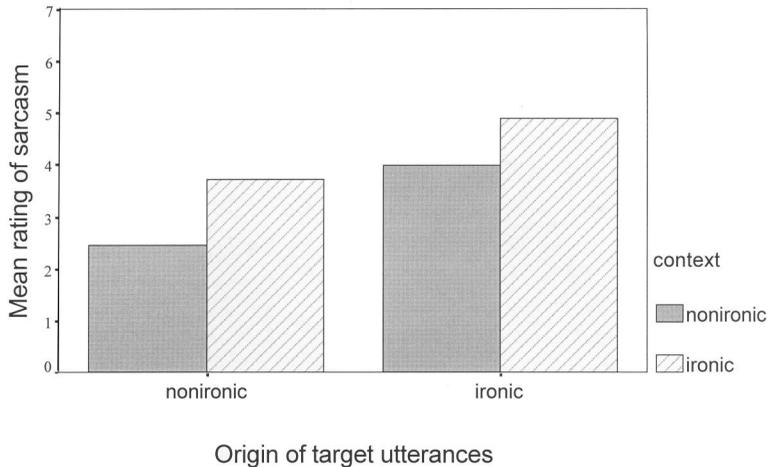


FIGURE 2 Experiment 2: Mean responses to targets heard and read in different contexts.

## GENERAL DISCUSSION

Relevance theory proposes that during discourse, the manner in which speakers and listeners strive to achieve relevance will be a function of the communicative situation (Sperber & Wilson, 1986). Various aspects of speech production and processing can be construed as more or less costly. Speakers and listeners will weigh these costs to optimize relevance while maintaining the least shared effort. A communicative situation that deprives interlocutors of particular sources of information (e.g., visual) should end up relying on other modes (e.g., acoustic) to ensure an efficient and reliable exchange. Based on relevance theory, we predicted that spontaneously produced verbal irony would contain prosodic disambiguation cues when originating in contexts lacking in other sources of information, and listeners would use these cues in addition to context. We found that people used the two sources of information both in sorting ironic and nonironic utterances according to where they originated, without any mention of sarcasm or irony, and in rating how sarcastic the utterances were.

The finding that context can push around judgments of irony is nothing new (Gibbs, 1994). But the finding that naturally produced prosody can significantly contribute to listeners' recognition of verbal irony is. Because prior work on the vocal characteristics of ironic speech has used actors (Anolli et al., 2000; Capelli et al., 1990; Milosky & Ford, 1997; Rockwell, 2000), little was known about the contribution of spontaneously produced prosodic cues as opposed to potentially stereotyped performances. Our results show that spontaneously produced verbal irony also contains prosodic features that help listeners differentiate it from sincere speech.

According to the echoic interpretation theory, speakers are simultaneously providing two general categories of information when using verbal irony. They are echoing either explicitly or implicitly a proposition attributed to another and expressing an attitude toward it. Sperber and Wilson (1986) explained that the variety of propositions echoed and attitudes expressed are enumerable. In fact, different forms of ironic speech can communicate different emotional messages (Leggitt & Gibbs, 2000). The recognition of both the echo and the attitude are required to make an utterance relevant, and this recognition can be achieved through the use of both local and global prosodic cues (also called linguistic and affective prosody). Local prosody is the use of particular acoustic attributes (e.g., F0, amplitude, and duration) that operate on specific syllables, words, or groups of words. In verbal irony, local cues may be associated with the recognition of an echoed proposition. Global prosodic cues involve intonation contours that act on whole utterances or groups of utterances. Traditional acoustic analyses usually measure global aspects of the speech signal such as F0 mean, F0 variability, amplitude variability, and speech rate. Global prosody conveys affective information and has been shown to communicate emotion invariantly as a function of intention (Cosmides, 1983;

Frick, 1985). The recognition of an attitude toward an echoed proposition is likely conveyed through these global prosodic features.

Acoustic analyses of the materials in the current study suggest that people are using primarily local cues in their judgments; that is, they are making inferences about echoic propositions rather than the attitudes expressed. The target utterances do not differ on several global acoustic parameters, including F0 mean, F0 variability, and speech rate (Bryant & Fox Tree, 2001). Preliminary evidence from research using other ironical utterances suggests that spontaneous verbal irony may sometimes contain global features that allow it to be distinguished from sincere speech, and also perceived as emotional speech (Bryant & Fox Tree, 2002). It may be the case that many of the prosodic features common in ironic speech are dependent on the specific words being used (i.e., local cues indicating echoic propositions) and yet also can act globally on utterances as in emotional speech (Cosmides, 1983). This explanation rules out the notion of some particular “sarcastic intonation” and instead characterizes the ironic tone of voice as a complex interaction of local and global prosodic cues. Future studies must examine how prosodic features concurrently disambiguate linguistic and affective information. Some research has examined the interaction of local and global prosody (e.g., Eady & Cooper, 1986; McRoberts, Studdert-Kennedy, & Shankweiler, 1995; Pell, 2001), but much work is needed. Additionally, research should examine how these and other factors are affected by varying communicative contexts.

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APPENDIX  
Target Utterances with Contexts

*Originally sarcastic items.* Actual (sarcastic) contexts presented first.

- 1) *that's certainly a good idea*  
so they uh, want to give kids a pass to the next grade despite failure, what do they call it ... a social promotion? *that's certainly a good idea.*

instead of uh, letting these children go on despite failure, they are proposing intensive tutoring ... what do they call it ... specialized schooling? *that's certainly a good idea.*

- 2) *you've lost the will to live*  
(Speaker 1) – I'm only drinking about four days a week now.  
(Speaker 2) – *you've lost the will to live.*

(Speaker 1) – it's like you just can't face your friend.  
(Speaker 2) – *you've lost the will to live.*

- 3) *okay, so there's a big difference*  
(Speaker 1) – well, at least you inhale pot and don't sniff it.  
(Speaker 2) – *okay, so there's a big difference*, yeah whatever, okay kids ... it's okay to inhale drugs, just no sniffing.  
(Speaker 1) – well, there is a difference actually.

(Speaker 1) – well, for one, way more people die from alcohol than pot.  
(Speaker 2) – *okay so, there's a big difference*, yeah, I've heard that before, like no one wrecks their car when they're stoned.  
(Speaker 1) – well, it's a difference that people don't talk about much.

- 4) *Okay, when can I make my appointment for that?*  
(Speaker 1) – When I'm in charge, I'm gonna sterilize people like you, you're screwing up the world.  
(Speaker 2) – *Okay, when can I make my appointment for that?*

(Speaker 1) – and we're gonna be scheduling the Endometriosis exams, um, for all of next month.  
(Speaker 2) – *Okay, when can I make my appointment for that?*

- 5) *I'll put that down in my notebook of things to remember*

you don't think the 14-year old selling the drugs is a victim? *I'll put that down in my notebook of things to remember.*

you say she likes pizza but only without cheese and tomato sauce? *I'll put that down in my notebook of things to remember.*

- 6) *no they don't have fun, oh no, they don't have fun*  
 (Speaker 1) – the last place I'd want to be is one of these skeptic debunker conferences, it doesn't seem like they have a lot of fun.  
 (Speaker 2) – *no they don't have fun, oh no they don't have fun.*

(Speaker 1) – looking at the way they work constantly, they seem miserable.  
 (Speaker 2) – *no they don't have fun, oh no they don't have fun.*

- 7) *now that we've solved all of the problems*  
*Now that we've solved all of the problems* facing the health care industry in just one hour, we can give it a rest.

*Now that we've solved all of the problems* on our immediate agenda, we can stop for a moment.

- 8) *I'm writing it down*  
 (Speaker 1) – there you have it, a self-proclaimed part-alien has just made a prediction, west coast, an earthquake in three weeks all the way up to Vancouver.... Alan, you heard it  
 (Speaker 2) – *I'm writing it down*

(Speaker 1) – there you have it, the book is called "Crop Circle Stories," I think you'll like it since you mentioned you're interested in them and everything, did you get that?  
 (Speaker 2) – *I'm writing it down.*

- 9) *I could tell you about that wonderful Scandinavian country of Norway.*  
*I could tell you about that wonderful Scandinavian country of Norway* that slaughters a lot of whales every year.

*I could tell you about that wonderful Scandinavian country of Norway* that's breathtakingly beautiful especially in the summer.

- 10) *you're just better than me*  
 (Speaker 1) – but I do have one tattoo, you just can't see it.  
 (Speaker 2) – really? ... I got four.

(Speaker 1) – well, *you're just better than me*, Cherise.

(Speaker 1) – but I've been playing as long as you have.

(Speaker 2) – really? ... maybe you just don't try hard enough. ...

(Speaker 1) – well, *you're just better than me*, Cherise.

11) *maybe they should call the mental health hotline*

(Speaker 1) – people get upset over the lamest stuff.

(Speaker 2) – yeah, sounds like someone didn't take their medication.

(Speaker 1) – *maybe they should call the mental health hotline*.

(Speaker 1) – people are definitely affected by this kind of situation

(Speaker 2) – yeah, sounds like someone really needs some assistance

(Speaker 1) – *maybe they should call the mental health hotline*

12) *which is a wonderful little concoction*

I guess he got, um ... like, whacked out on what's called like, poor man's PCP *which is a wonderful little concoction*, and make no mistake, this stuff is evil!

I'm like, totally addicted to this smoothie I have, like, every day *which is a wonderful little concoction*, and make no mistake, this stuff is the best!

*Originally nonsarcastic items.* Actual (nonsarcastic) contexts presented second.

1) *this is a good thing*

he keeps on making you come in again and again, the doctor is making a profit off of you, *this is a good thing*.

I think it's okay ... they are someone who is paying attention to words and grammar, *this is a good thing*.

2) *because obviously you don't stop there*

I mean, this is what, the fourth time she rejected him, but he asked again *because obviously you don't stop there*.

Once you get results like these you've got to continue the research *because obviously you don't stop there*.

3) *that sounds like fun*

(Speaker 1) – so, it was really awkward ... we just stared at each other.

(Speaker 2) – oh, *that sounds like fun*.

(Speaker 1) – so, we went to the park and ... we had a little party.

(Speaker 2) – oh, *that sounds like fun*.

- 4) *they really make life a lot of fun*  
these kids are vandalizing our property like every week it seems ... *they really make life a lot of fun*.

in my experience with my own cats, I imagine all cats are special ... they are wonderful pets ... *they really make life a lot of fun*.

- 5) *of course, you wouldn't know that by looking at me now*  
when I was in 8th grade I was already way bigger than average, *of course, you wouldn't know that by looking at me now* since I only weigh about 300 pounds ... I've always been, um ... big.

when I was in 8th grade I was reading at a 12th grade level, *of course, you wouldn't know that by looking at me now* since I'm mostly a video person ... I wouldn't pick up a book to save my life.

- 6) *you know, Katie's been trying so hard*  
She hasn't even filled out one job application yet, yeah, *you know, Katie's been trying so hard*.

He just won't answer the question the way she wants and *you know, Katie's been trying so hard*.

- 7) *Oh, they are ingenious*  
*Oh, they are ingenious*, I'm surprised they are able to dress themselves each day!

*Oh, they are ingenious*, just phenomenal with educating people about this!

- 8) *oh yeah, he watches CNN*  
(Speaker 1) – he doesn't even know who Monica Lewinsky is.  
(Speaker 2) – *oh yeah, he watches CNN*.

(Speaker 1) – all this stuff goes out on satellite, and Saddam is watching it.

(Speaker 2) – *oh yeah, he watches CNN*.

- 9) *I do it for the money and nothing else*

Yeah, frisbee-golf is so lucrative, I mean, *I do it for the money and nothing else.*

I'm a silicon valley mercenary really, *I do it for the money and nothing else.*

10) *yeah, that shocked me too*

(Speaker 1) – I'm just tired of hearing about all of Clinton's affairs.

(Speaker 2) – now another woman has come forward.

(Speaker 1) – *yeah, that shocked me too.*

(Speaker 1) – I just started writing without caring and I removed so many filters.

(Speaker 2) – you're getting quite a bit of praise for quite good reason.

(Speaker 1) – *yeah, that shocked me too.*

11) *that's a tough thing to do all day long, if that was your job*

(Speaker 1) – what do they do ... I mean ... all day?

(Speaker 2) – maybe ... uh, sit by the pool and work on their tans?

(Speaker 1) – *that's a tough thing to do all day long, if that was your job.*

(Speaker 1) – how do they kill the minks ... use baseball bats?

(Speaker 2) – that's a lot of annihilation for just one coat.

(Speaker 1) – *that's a tough thing to do all day long, if that was your job*

12) *so, you know, that's not gonna happen*

(Speaker 1) – so, do you think he'll go there?

(Speaker 2) – well, uh, he loves to drink and it's the only bar in town *so, you know, that's not gonna happen.*

(Speaker 1) – do you think we'll get national health care?

(Speaker 2) – well, the health care industry is gonna have to surrender *so, you know, that's not gonna happen.*